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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/563,571	06/08/2006	Naveen Chandra Bisht	47677-0001	1031
55694 7590 06/27/2008 DRINKER BIDDLE & REATH (DC) 1500 K STREET, N.W. SUITE 1100 WASHINGTON, DC 20005-1209				
EXAMINER				
FOX, DAVID T				
ART UNIT		PAPER NUMBER		
1638				
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06/27/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/563,571

**Applicant(s)**

BISHT ET AL.

**Examiner**

David T. Fox

**Art Unit**

1638

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ONE(1) MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-30 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SE/US)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claims 1, 2 (in part), 5-6 and 9-15 (in part), drawn to a DNA construct comprising two native restorer protein-encoding constructs having different nucleotide sequences but encoding the same protein, under the control of two different male tissue-specific promoters, and plants containing them.

Group II, claims 2 (in part), 3-4, 7-8, 9-15 (in part) and 16-30, drawn to a DNA construct comprising two cytotoxin-reversing restorer protein-encoding constructs having different nucleotide sequences but encoding the same protein, under the control of two different male tissue-specific promoters, plants containing them, and methods for making them.

The inventions listed as Groups I-II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The claims are linked by the technical feature of a DNA construct comprising two different nucleotide sequences encoding the same restorer protein, each under the control of a different male tissue-specific promoter. However, this feature is not special because it does not constitute an advance over the prior art, as stated below.

ZENECA LIMITED teaches that more than one sequence encoding the same protein may be inserted into a plant genome for increased production of that protein,

that in order to minimize gene silencing two different nucleotide sequences should be employed, wherein codon optimization may be used to generate the different sequences, and that two different tissue-specific promoters may be employed; wherein the method was tested with the agronomic trait of increased carotene production in tomatoes, and wherein the method was suggested as having broad applicability to any desired protein (see, e.g., page 1, lines 7-18; page 2, lines 9-26; page 3, lines 1-10 and 13-23; page 4).

ZENECA LIMITED does not explicitly teach genes encoding male fertility restorer proteins. However, Jagannath et al teach plant transformation with DNA constructs comprising wild-type or modified barstar-encoding sequences which restore fertility by negating the effect of the cytotoxic protein barnase, wherein the barstar-encoding sequences are operably linked to the male tissue-specific TA29 promoter, and wherein multiple copies of the barstar-encoding constructs may occur (see, e.g., page 46, Abstract; page 47, column 2, first full paragraph and Figure 1; paragraph bridging pages 47 and 48; page 48, bottom paragraph of each column; page 49, column 1, top paragraph and column 2, first full paragraph; page 51, paragraph bridging the columns).

It would have been obvious to one of ordinary skill in the art to utilize the method of inhibiting gene silencing taught by ZENECA LIMITED, and to modify that method by incorporating the wild-type and modified barstar-encoding sequences taught by Jagannath et al, given the suggestion of ZENECA LIMITED and the recognition by those of ordinary skill in the art that multiple copies of the same barstar gene might result in gene silencing. Choice of additional known male tissue-specific promoters, as

suggested by ZENECA LIMITED, would have been the optimization of process parameters.

Furthermore, each Group involves physiologically and biochemically divergent starting materials, so that they do not possess unity of invention. Group I, a first product, involves native restorer genes and methods for their identification and evaluation, not required by Group II. Group II, a second product and method of making it, requires heterologous barstar- and barnase-encoding sequences, not required by Group I.

**Applicant is advised that the reply to this requirement to be complete must include (i) an election of a invention to be examined even though the requirement may be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.**

The election of an invention may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse. Traversal must be presented at the time of election in order to be considered timely. Failure to timely traverse the requirement will result in the loss of right to petition under 37 CFR 1.144. If claims are added after the election, applicant must indicate which of these claims are readable on the elected invention.

If claims are added after the election, applicant must indicate which of these claims are readable upon the elected invention.

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Should applicant traverse on the ground that the inventions are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David T. Fox whose telephone number is (571) 272-0795. The examiner can normally be reached on Monday through Friday from 10:30AM to 7:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg, can be reached on 571-272-0975. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/David T Fox/

Primary Examiner, Art Unit 1638

June 20, 2008